

REMARKS

This amendment is in response to the Office Action of 06/22/2009. The responses and section headings are in the same order as issues are set forth in the Office Action.

A. Specification

The Examiner objects to the Abstract because it contains legal phraseology and possible spelling errors. The Examiner did not identify the spelling errors and Applicants did not find any. Notwithstanding, a new Abstract which meets the requirements set forth in the MPEP is submitted herewith. It is respectfully requested that the old Abstract be replaced with the new one.

B. Claim Rejection – 35USC 101

1. Claims 28 and 29 are rejected under 35USC 101 because the claimed invention is directed to non-statutory subject matter. The Examiner states: “Claim 28, line 1 recites “a program product” which is software and is non-statutory subject matter”.

In response, Applicants respectfully disagree with the Examiner and argue Claim 28 is statutory because, as amended, it recites computer readable medium encoded with computer readable program, as set forth in the Claim. As a consequence, Claims 28 and 29 are directed to a computer element which defines structural and functional interrelationship between the computer program and the rest of the computer which permits the computer’s functionality to be realized and is thus statutory. MPEP 2106.01 I. Also see *In re Lowry*, 32F.3d at 1583-84, 32 USPQ 2d at 1035.

In addition, Applicants argue it appears the Examiner erred in concluding Claim 28 is non-statutory because it seems reliance was based on the preamble of the claim rather than the claim as a whole. In order to determine if a claim is statutory under 35 USC 101 the claim must be considered in its entirety and not on part of it as was done

here. Applicants also contend that the claim as originally filed did recite statutory subject matter. The language in the amended claim is probably more precise than the original language, but the scope of the claimed subject matter is the same. Stated another way, the language of the claim as originally filed is equivalent to the language of the amended claim.

C. Claim Rejections - 35U.S.C. 112

1. Claims 28 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner states: "The specification does not describe how a program (software) product may comprise a computer usable medium having computer readable code stored therein". See items 6 and 7, Office Action.

Applicants are somewhat surprised that this type of rejection would be made against a well developed and known technology. Claims 28 and 29 call for a program product comprising ...computer readable medium....embedded with computer readable code... The functions performed by the computer readable code are recited in the claim. It is Applicants' contention that a person having ordinary skill in the art would know how to implement this program on a computer readable medium.

In addition, Applicants direct the attention of the Examiner to page 12, lines 20 through 24 which are currently amended with language from Claim 28. This in combination with flow charts in Fig 6 and Fig. 7 and text describing the flow charts would be sufficient for one skilled in the pertinent art to practice the invention set forth in Claims 28 and 29. As a consequence, the specification does support the claimed subject matter and the claims are patentable.

With respect to the amendment to Claims 28 it is Applicants' contention that this is not new matter because the added material was in Claim 28, as originally filed. An Applicant in establishing an invention may rely on the specification, drawings or

claims. In the present situation, Applicant is relying on the claim as originally filed. In addition, the language in the Claim does not have to be exactly as the language in the specification.

D. Rejection Under 35U.S.C. 112, second paragraph

1. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states: "The claims are generally narrative, failing to conform with US practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Applicants have reviewed the claims and changes that are deemed necessary are made. If the Examiner still believes that additional changes are required, Applicants respectfully request the Examiner specifically identify the problem in each claim and Applicants will amend accordingly.

2. Rejection Of Claims 1, 4, 5, 9, 10, 14 and 15

The Examiner's conclusion that Claims 1, 4, 5, 9, 10, 14, and 15 are means plus function claims . permitted by 35 U.S.C. 112, sixth paragraph is correct. The claims speak for themselves and it is clear that they invoke 35 U.S.C. 112, sixth paragraph. However, the Examiner argues that the written description fails to disclose the corresponding structure, material or acts for the claimed functions.

Applicants respectfully disagree with the Examiner and will point out where each of the claimed function is supported in the specification. It is worthwhile noting that support in the specification should be interpreted in light of an artisan having ordinary skill in the art. As a consequence, well known structure, material or acts need not be described in details to meet the requirements of 35 U.S.C. 112, second paragraph. In addition, it should ,also, be noted the claimed subject matter need not be described

literally, i. e. using the same term in order for the disclosure to satisfy the description requirement. Software aspect of invention , for example, may be described functionally. In re Hayes Microcomputer Products Inc. 982 F. 2d 1527, 1537-38; 25 USPQ 2d 1241, 1248-49(Fed. Cir. 1992).

The support in the specification for claimed functions follows:

a. Claim 1..... means (271) for allocating temporary storage in a buffer.....

Means (271) includes a programmable computer that allocates temporary storage location in a buffer (page 12, third full paragraph). A flow chart for the program is depicted in Fig. 6 and described at pages 20-22, see step 605(Fig. 6). In addition, the Abstract states, in part: "The re-sequencing system includes a controller that allocates to each received data packet a temporary storage location in a packet buffer".

.....means (510,~~550~~).....for pointing to an output register (540)....

Means 510 includes CAM 510 with entries pointing to output registers (Figure 5, page 16, lines 7-10, page 17, lines 15 – 32, and page 18, lines 1 – 2).

.....means (~~270~~ 271)...for determining if each received data is next in sequence of the corresponding flow, by comparing the packet sequence number..

The means for providing this function includes the computer 271 executing the program shown by the flow chart in Figure 6 and related description at page 20, lines 25 – 30, and page 21, lines 1 – 10.

b. Claim 4..... means (550) for ~~assigning~~ providing a new output register..

The means for providing this function includes a register stack (called FRL 550) from which registers can be removed when needed and registers can be added (Figure 5, page 17 lines 27 – 32, and page 18, lines 1 – 2.).

c. Claim 5.....means (514,523) for preventing over filling of said First Content Addressable Memory.

The means 514 is the free entry list (FEL 514) table providing buffers for the CAM. The computer which controls the egress adapter add and/or remove buffers from FEL.

When FEL is empty attempt of the controller to add a new flow to the CAM is aborted. This indicates the CAM is full. See Figure 5, page 18, lines 17 – 23, page 12, lines 20 – 24, and Figure 6, pages 21 and 22.

The means 523 is a time stamp (TS) bit in CRI CAM .It is used to tell the age of an entry in the CAM. The controller executing the program whose flow chart is shown in Figure 8 and describe at page 25, lines 21 – 30 uses this bit to purge or remove old entries from the CAM.

d. Claim 9 scheduling means (280).....for selecting one of the in- process data packet to be output.

The scheduling means 280 performs scheduling function . It is shown in Figure 2 and described at page 11, lines 15 – 25. This teaching is sufficient for one having ordinary skill in the art to practice the claimed subject matter.

e. Claim 10 ...scheduling means coupled to each of the valid bit latches to select one valid – bit latch having an active status.

Figure 5 shows valid bit latches V of output registers 500 coupled to the scheduler. The description is set forth at page 19, lines 24 – 28 of the specification. The scheduler is also shown in Figure 2 and discussed at page 11, lines 15 – 25. These teachings are sufficient for one skilled in the art to practice the subject matter of Claim 10. Schedulers are well known in the art. As a consequence, further description of this well known device is not warranted.

f. Claim 14means (205) for load balancing the data packets over a plurality of independent switching planes ~~the data packets~~.

The load balancing circuit 205 is shown in Figure 2 and described at page 9, lines 3 – 7 and page 10, lines 1- 12. Load balancing techniques and circuits are well known in the art. See for example, Beshai Pub. No. US 2002/0083195A1, cited by the Examiner. Therefore, it is well within the skills of an artisan to provide a balancing circuit based upon this disclosure.

g. Claim 15.....means (220) for scheduling the switching of the data packets over the plurality of independent switching planes.

Scheduler 220 is shown in Figure 2 and described at page 11, lines 26 – 32 and page 12, lines 1- 6. Scheduling circuits and techniques are well known in the art. As a consequence, an artisan would be able to provide a scheduler based upon this disclosure.

3. Rejection Of Claims 2, 6, 11, and 13

With respect to Claims 2, 6, 11, and 13 the Examiner seems to raise issues about the sufficiency of the limitations and concludes that the claims should be amended so that the phrase “means for” is not modified by structure, if the claims are to be examined under 35 USC 112, sixth paragraph (see page 6,O.A.).

a. Claim 2 depends on Claim 1 and limits the “means for pointing ..” by reciting structure. It is clear that this element of Claim 2 would not qualify for examination under 35 USC 112, sixth paragraph.

b. Claims 6 and 11 are amended to make it clear that they recite structures associated with elements set forth in the Claim on which each depends. As a consequence, these elements of Claims 6 and 11 are probably not qualified for 35USC 112, sixth paragraph examination.

The Examiner seems to suggest that the phrase “ means for” should be remove from Claims 2, 6, and 11 if they are not to be examined under 35 USC 112, sixth paragraph.

Applicant respectfully disagree with this position because Claims 2, 6, and 11 are dependent claims modifying (further limiting) an element that is recited in the independent claim. As a consequence, the element that is being modified must be recited in the dependent claim . To do otherwise would lead to confusion and make no sense.

Claim 13 is in the “means plus function format and should be examined under the appropriate section of the statute. Further amendment to this claim is not warranted.

E. Claim Rejections - 35USC 103

Claims 1, 11, 13, and 16 – 21 are rejected under 35USC 103 (a) as being unpatentable over Salamat(US 20030012200a1) in view of Sasagawa(US20080253379a1).

The arguments supporting the rejections are set forth on pages 7 through 13 of the Office Action. For brevity, the arguments will not be reproduced verbatim but they have been studied and will be referenced when deemed necessary in the following arguments traversing the rejections.

Examiner Fails To Establish A Prima Facie Case Of Obviousness

To establish a prima facie case of obviousness three basic criteria must be met. MPEP 2142. First there must be a suggestion or motivation to modify or combine the references. In re Vaeck, 947 F 2d 488, 493; 20 USPQ 1438, 1442 (Fed.Cir.1991). Second, there must be a reasonable expectation of success in the modification or combination. In re Merck & Co., Inc.. 800 F. 2d 1091, 1097; 231 USPQ 375,379 (Fed. Cir. 1986). Finally, the modification or combination must teach or suggest all of Applicants claimed limitations. In re Royka, 490 F.2d 981, 985; 180 USPQ 580, 583 (CCPA 1974).

Applicants are not obligated to present rebuttal evidence or arguments traversing the obviousness rejections until a Prima Facie case of obviousness has been established. As will be argued hereinafter a Prima Facie case of obviousness has not been made relative to any of the rejected claims. As a consequence, Claims 1-30 are patentable over the art of record.

With respect to Claims 1, 11, and 13, Salamat , alone or in combination with Sasagawa, does not teach or suggest ...”a plurality of output registers (540) dynamically assigned to store received data packets from one of a plurality of flows”;

and/or “means (510) using predefined parameters for pointing to an output register storing the received data packets from said selected flow”. Because the references do not suggest or teach these limitations a Prima Facie case has not been established and Claims 1, 11, and 13 are patentable over the art of record. It should be noted the amendments to Claim 1 make explicit the information that was implicit in the Claim as originally filed. As a consequence, the claim has not been narrowed by this amendment.

In addition, Claims 11 and 13 are independently patentable over the art of record because the limitation recited in each claim is not found or suggested by the references.

The Examiner seems to suggest the above limitations are found in Salamat. In particular, the Examiner seems to suggest “means using predefined parameters for pointing to an output registeris found or suggested in Salamat. For this element of Applicant’s claims the Examiner refers to [0012] of Salamat (see O.A. page 8, line 5).

Applicants construe this reference to Salamat to mean this element of Applicants’ claim is found in [0012] of Salamat. However, a review of Salamat, including [0012], did not find any suggestion that could reasonably be construed as teaching or suggesting “means using predefined parameters for pointing to an output register....”. The other limitations, referred to above, relative to Claims 11, and 13 could not be found in Salamat. In addition, Sasagawa did not disclose or suggest these limitations. As a consequence, it appears the Examiner erred in concluding that these limitations are disclose or suggested in the references.

As argued above and incorporated herein by reference, the Examiner has not established a Prima Facie case of obviousness relative to Claims 16 – 21. In particular, Claim 16, in part, calls for “(610) extracting predefined parameters; using the predefined parameters to search a memory and identifying a cross reference index therefrom; using the cross reference index associated with each received data packet to point to respective output register previously assigned to the corresponding flow of each

receive data packet;" None of these elements are found in the cited references. Therefore, Claim 16 and dependent Claims 17-21 are patentable over the art of record. As argued above to the extent the Examiner concludes that these elements are suggested by the cited reference such a conclusion appears to be error.

Rejection Of Claims 2 - 10, 11 (as dependent on Claim 2), 22 - 23

Claims 2 - 10, 11(as dependent on Claim 2), 22 - 23 are rejected under 35USC 103(a) as being unpatentable over Salamat, in view of Sasagawa as applied to Claims 1 and 16 and further in view of Bryers(US20030126233a1).

As argued above and incorporated herein by reference a Prima Facie case of obviousness has not been established relative to Claims 2 - 10 and 22 - 23. As a consequence these claims are patentable over the art of record. In particular, Claims 2 - 10, and 11 depends on Claim 1 directly or indirectly through other Claims. As a result of this dependency, all limitations of Claim 1 are read into dependent Claims 2 - 10 and 11. The Examiner relied on Salamat as the primary reference in rejecting these Claims. As argued above and incorporated herein by reference, Salamat ,alone, or in combination with the other references does not teach or suggest ..."a plurality of output registers (540) dynamically assigned to store received data packets from one of a plurality of flows";

and/or "means (510) using predefined parameters for pointing to an output register storing the received data packets from said selected flow". Because these limitations are not found in the references, the Examiner has not established a Prima Facie case of obviousness and claims 2 - 10 and 11 are patentable over the art of record.

In rejecting Claims 8, 9, 10, and 11 the Examiner relied on Salamat alone and relied on the teachings in [0012] of this reference. This section of Salamat teaches the techniques used by Salamat to re-sequence packets that were declared lost. The technique is directed to a different invention than the subject matter set forth in Claims

8, 9, 10, and 11. Applicants fail to see how the teachings of [0012] Salamat would suggest the subject matter claimed in Claims 8, 9, 10, and 11. There may be logical reasons linking [0012] to Applicants claimed subject matter. But so far, the Examiner has not articulate any reasons for the connection and Applicants know of none.

Regarding Claim 2 the Examiner relied on Bryers for teaching the subject matter set forth in the Claim. It is Applicants' contention that among other things Bryers does not suggest—an associated identifier field including a cross reference index to point to a previously assigned output register among a plurality of output register. So even with Bryers the references single or in combination do not suggest all the limitations in the claimed invention. Therefore, a Prima Facie case of obviousness has not been established and Claim 2 is patentable over the art of record.

Claim 22 depends on Claim 16. The limitations in Claim 16 are incorporated in Claim 22. As argued above and incorporated herein by reference, Claim 16, in part, calls for “(610) extracting predefined parameters; using the predefined parameters to search a memory and identifying a cross reference index therefrom; using the cross reference index associated with each received data packet to point to respective output register previously assigned to the corresponding flow of each receive data packet;” None of these elements is found in Salamat and/or Bryers, on which the Examiner relied in rejecting Claim 22. As argued above and incorporated herein by reference, the Examiner has not established a Prima Facie case of obviousness. Therefore, Claim 22 is patentable over the art of record.

Claim 23 depends on Claim 16 and Claim 1. With respect to its dependency on Claim 16, the argument set forth above relative to Claim 22 is equally applicable to Claim 23 and is incorporated herein by reference. Regarding its dependency on Claim 1 the limitations and arguments set forth above relative to Claim 1 is equally applicable and is incorporated herein by reference. The Examiner, in rejecting, Claim 23 relied on Salamat and Bryers, whereas in rejecting Claim 1 only Salamat was applied to Claim 1.

The limitations set forth above relative to Claim 1 was not found in Bryers. As a consequence, the limitations and arguments set forth above relative to Claim 1 is applicable to Claim 23. In this regard, the Examiner has not establish a prima facie case of obviousness relative to Claim 23. Therefore, Claim 23 is patentable over the art of record.

Claim 12 (as dependent on Claim 1) is rejected under 35 USC 103(a) as being unpatentable over Salamat, in view of Sasagawa as applied to claim 1 above, and further in view of Yen (US20020150097A1). For this rejection the Examiner relied on Salamat and Yen.

Claim 12 depends on Claim 1, and all limitations of Claim 1 must be read into Claim 12. As a consequence, the limitations and arguments set forth above relative to Claim 1, as relate to Salamat, is equally applicable to Claim 12 and is incorporated herein by reference. Yen does not teach or suggest the limitations that applicants argued are not found in Salamat. Therefore, a Prima Facie case of obviousness has not been established relative to Claim 12 and it is patentable over the art of record.

Regarding the rejection of Claim 12 as it depends on Claim 2, it is Applicants' contention the limitations and arguments set forth above relative to Claims 1 and 2 are equally applicable to Claim 12 as it depends on Claim 2. As a consequence, a Prima Facie case of obviousness has not been made and Claim 12, as it depends on Claim 2, is patentable over the art of record.

Claim 14 – 15 are rejected under 35 USC 103(a) as being unpatentable over Salamat, in view of Sasagawa as applied to Claim 1 above and further in view of Beshai (US20020083195A1).

Claims 14 and 15 depends on Claim 1. Therefore, all limitations of Claim 1 must be read into these claims. Likewise, the argument set forth above in asserting that Claim 1 is patentable over Salamat and Sasagawa are equally applicable and incorporated herein by reference. Simply stated, the limitations, set forth above, found

in Claim 1 are not found in the references. As a consequence, the Examiner has not established a prima facie case of obviousness and Claims 14 and 15 are patentable over the art of record.

Claim 15 calls for "...means (220) for scheduling the switching of the data packets over the plurality of independent switching planes". The Examiner relied on [0122] Beshai for support (page 23, O.A.).

Applicants respectfully disagree with the Examiner and assert that Beshai does not teach and/or suggest "scheduling" as set forth in Claim 15. Beshai, second paragraph of the Abstract, and [0122] suggest load balancing and not scheduling. The characterization of Beshai as teachings supporting the rejection of Claim 15 appears to be error. With no support in the art for Claim 15, applicants contend that it is patentable over the art of record. In addition, due to the fact that this element is not found in the references the Examiner has not establish a Prima Facie case of obviousness.

Claims 24 – 29 are rejected under 35USC 103(a) as being unpatentable over Salamat in view of Bryers. Bryers is cited for disclosing a CAM which, according to the Examiner, could be used to modify Salamat with specific routing details to properly provide network services.

In response, applicants respectfully disagree with the Examiner and argue it would take much more than ordinary skill in the art to combine the CAM disclosed in Bryers with Salamat in order to render Claim 24 obvious. Even after the Examiner's combination the results would not teach or suggest all the elements of Applicants' Claim 24. In particular. Claim 24, in part, calls for "...providing a plurality of registers with each register associated with a flow; providing a cross reference table with each entry associated with a register within said plurality of registers;.....searching the cross reference table with parameters selected from the packets....." None of the recited steps are found in Salamat and/or Bryers, singly or in combination. As argued above and

incorporated herein by reference the Examiner is obliged to establish a Prima Facie case of obviousness. Failure to do so is evidence of unobviousness. Therefore, Claim 24 is patentable over the art of record.

Claims 25, 26, and 27 depend on Claim 24. The limitations of Claim 24 are incorporated in the dependent Claims . As a consequence, Claims 25, 26, and 27 are patentable for the same reasons (identified above and incorporated herein by reference) that Claim 24 is patentable. With respect to Claim 25, Applicant is aware of the Examiner's position that Bryers, discloses the subject matter of Claim 25. Applicants have reviewed Bryers and could not find such teachings. Likewise, the Examiner contends the subject matter of Claims 26 and 27 are found in Salamat. The Examiner relied on [0012] Salamat to support his position. A review of Salamat did not find any teachings that could reasonably be construed to disclose or suggest the subject matter of Claims 26 or 27.

Claims 28 and 29, due to its dependency on Claim 28, calls for ,in part, "...a second instruction module with instructions that use the predetermined extracted predefined parameters to search an index table having multiple entries with each of said multiple entries associated with a different register..." Neither Salamat singly or in combination with Bryers disclose or suggest this limitation. Therefore, the Examiner has not established a Prima Facie case of obviousness. As argued above and incorporated by reference , failure to do so is evidence of non obviousness. Therefore, Claims 28 and 29 are patentable over the art of record. Applicant is aware of the Examiners' position that Bryers disclose the subject matter of Claim 29. Applicants have reviewed Bryers and did not find any teachings that could reasonably be construed to suggest the subject matter of Claims 28, and 29.

Claim 30 is rejected under 35 USC 103(a) as being unpatentable over Salamat, in view of Bryers, and further in view of Beshai. The Examiner states: "Bryers discloses a cross reference index table ([0550] content addressable memory)". The Examiner relied

on Beshai for disclosing "a plurality of switching planes ; a buffer for storing packets transported through said switching planes.

It is Applicants' contention that the Examiner has not established a prima facie case of obviousness relative to Claim 30. As argued above and incorporated herein by reference, a prima facie case of obviousness is established if all the limitations of Claim 30 are found in the cited references singly or in combination. The references do not disclose or suggest the following limitations:"...a register stack wherein each register is associated with a different flow of a multiflow system; a cross reference index table having a plurality of entries with each entry associated with a different register in said register stack" As a consequence, a Prima Facie case of obviousness has not been made and Claim 30 is patentable over the art of record.

Applicants have reviewed the Examiner's argument and respectfully disagree. Applicants contend the references, singly or in combination, do not disclose or suggest the relationship between registers in the register stack and flows in the multi flow system and/or the relationship between entries of the cross reference table and registers of the register stack. As a consequence, even after the Examiner's combination the resulting structure would not render Claim 30 obvious.

CONCLUSION

It is believed the present amendment answers all issues raised in the subject Office Action . Reconsideration is hereby requested and an early allowance of Claims 1-30 is solicited.

Respectfully Submitted,

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